EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

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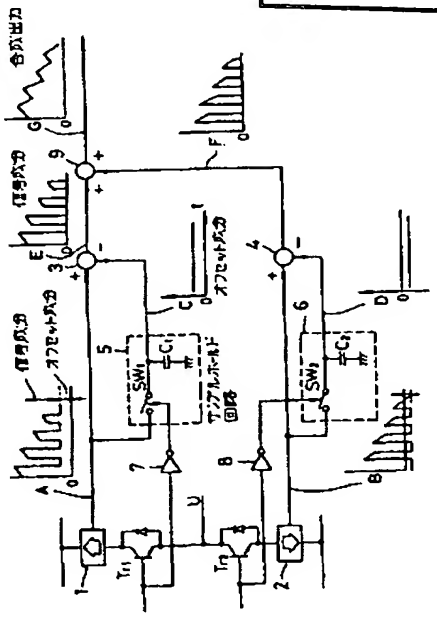
APPLICANT : MEIDENSHA CORP;

INVENTOR : YAMAMOTO YASUHIRO;

INT.CL. : G01R 19/00 G05F 1/10 H02M 7/48

TITLE : CURRENT DETECTION CIRCUIT CHARACTERIZED BY HALL CT OFFSET AND AUTOMATIC CORRECTION



ABSTRACT : PURPOSE: To make it possible to detect current accurately by outputting offset components from sample and hold circuits, and correcting a signal in an adding circuit.

CONSTITUTION: A U-phase current is alternately flows into transistors Trs 1 and 2 of an inverter. The current does not flow during the OFF period of the transistors. The directions of the offset voltages of Hall CTs 1 and 2 are opposite. The Hall CTs 1 and 2 output current signals A and B, respectively. Electronic switches SWs 1 and 2 are closed for the OFF period of the gate signals of the Trs 1 and 2 based on the timing signals from NOT circuits 7 and 8. Capacitors C1 and C2 are charged with the offset voltages of the signals A and B. Sample and hold circuits 5 and 6 output offset components C and D, respectively. Therefore, subtractors 3 and 4 output signal components E and F which are obtained by subtracting the offset components from the outputs of the Hall CTs 1 and 2. In an adding circuit 9, the signal components E and F are synthesized, and a signal G is obtained. The U-phase current signal wherein the offset voltage is automatically corrected can be obtained.

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Patent Abstracts of Japan

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APPLICATION NUMBER : 02315047

APPLICANT : FUJI ELECTRIC CO LTD;

INVENTOR : FUNAMOTO KOUJI;

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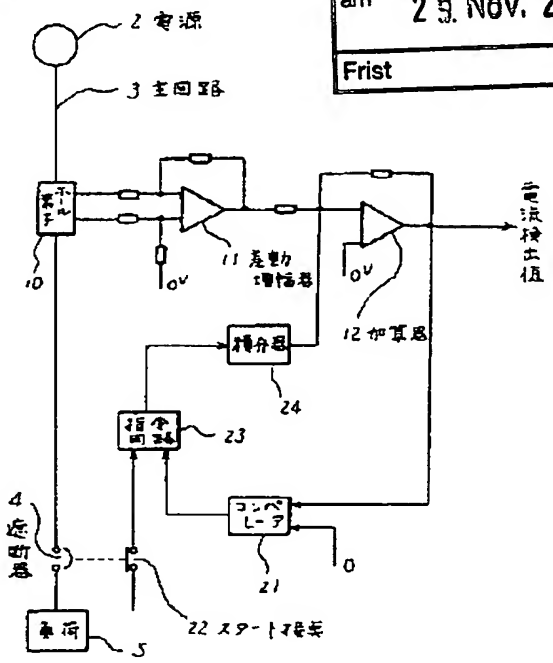
TITLE : OFFSET ADJUSTING DEVICE OF HALL CURRENT TRANSFORMER



ABSTRACT : PURPOSE: To automatically adjust an offset to zero by starting the operation of a change signal generating means when a current to be detected is zero, and stopping the operation when a zero detecting means detects zero.

CONSTITUTION: When a breaker 4 is opened, a start contact 22 is closed and an operation instruction is given to an integrator 24 via an instructing circuit 23. Therefore, the integrator 24 increases its output in accordance with the preset changing rate with time. If a Hall device 10 has an offset, the offset is amplified at 11 and input to an adder 12. Since the change signal is input also to the adder 12 from the integrator 24, both signals cancel each other. A zero output is detected by a comparator 21 when the output of the adder 12 becomes zero, and a stopping instruction is output to the integrator 24 through the circuit 23. As a result, the integrator 24 continues to output the value cancelling the offset. Accordingly, the adder 12 outputs a correct voltage signal corresponding to the current generated when the breaker 4 is closed. If the breaker 4 is opened, the offset is corrected again.